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PATENT ABSTRACTS OF JAPAN

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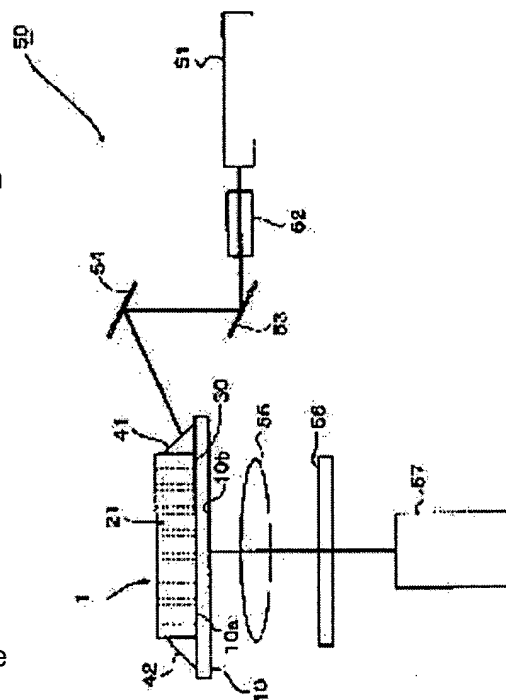
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(54) MICROWELL PLATE AND FLUORESCENCE DETECTOR WITH THE SAME

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a microwell plate which can detect fluorescence generated from a sample with a higher S/N ratio by reducing the irradiation of excitation light to others than the sample and a fluorescence detector with the same.

SOLUTION: A well forming member 20 with wells 21 formed thereon at a specified pitch is disposed on the top surface of a transparent substrate 10. A reflection film 30 is provided between the well forming member 20 and the transparent substrate 10. Prisms 41 and 42 are put tight on the top surface 10a of the transparent substrate 10. When excitation light L is made incident into the transparent substrate 10 at an angle of incidence exceeding a critical angle from the prism 41, the excitation light L is propagated repeating total reflection thereof on the top surface 10a and the undersurface 10b of the transparent base plate 10 to generate an evanescent wave outside the transparent base plate 10 near the top surface 10a and the undersurface 10b thereof. The evanescent wave excites fluorescent pigment in a sample in the well 21, being confined to that near the interface between the top surface 10a of the transparent substrate 10 and the sample.



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